What is claimed is:

1. A zoom flash comprising:

a light emitter;

a zoom driver which moves said light emitter along an axis to vary an illumination angle;

a detecting device which detects a zoom position of said light emitter;

a calculation device which calculates a pre-flash emission level according to the detected zoom position so that illuminance on an object at a predetermined distance is substantially constant regardless of a variation of said illumination angle; and

a control device which activates said light emitter to emit a preliminary flash emission, before a main flash emission, by supplying a voltage corresponding to said pre-flash emission level for said light emitter.

2. The zoom flash according to claim 1, wherein said calculation device calculates said pre-flash emission level so that an effective guide number is substantially constant regardless of said variation of said illumination angle.

3. The zoom flash according to claim 1, further comprising:

a memory in which a maximum guide number that varies in accordance with said zoom position, a reference guide

number predetermined as a constant, and a reference flash emission level predetermined as a correction constant are stored;

wherein said maximum guide number, said reference guide number, and said reference flash emission level are stored in said memory, and wherein said calculation device calculates a pre-flash emission level using the following equation:

$$Vfp = Va \times (Gnos/Gno(zoom))^2$$

wherein "Vfp" represents said pre-flash emission level;

"Va" represents said reference flash emission level;

"Gnos" represents said reference guide number; and

"Gno(zoom)" represents said maximum guide number corresponding to the detected zoom position.

4. The zoom flash according to claim 3, further comprising a terminal connector via which said zoom flash can be electrically connected to a camera body;

wherein said zoom driver moves said light emitter in accordance with a focal length of a photographing lens of said camera body in a case where said zoom flash is electrically connected to said camera body.

5. The zoom flash according to claim 1, wherein said control device controls said light emitter perform a pre-flash emission in a flat emission mode.

6. A flash photography system having a camera body and at least one zoom flash, said at least one zoom flash being activated to emit a preliminary flash emission before a main flash emission, wherein said at least one zoom flash comprises:

a light emitter;

a zoom driver which moves said light emitter along an axis to vary an illumination angle; and

a detecting device which detects a zoom position of said light emitter;

wherein one of said camera body and said at least one zoom flash comprises:

a calculation device which calculates a pre-flash emission level according to the detected zoom position so that an illuminance on an object at a predetermined distance is substantially constant regardless of a variation of said illumination angle; and

a control device which activates said light emitter to emit a preliminary flash emission by supplying a voltage corresponding to said pre-flash emission level for said light emitter before a main flash emission.

7. The flash photography system according to claim 6, wherein said calculation device calculates said pre-flash emission level so that an effective guide number is substantially constant regardless of said variation of

said illumination angle.

8. The flash photography system according to claim 6, wherein said zoom flash further comprises:

a memory in which a maximum guide number that varies in accordance with said zoom position, a reference guide number predetermined as a constant, and a reference flash emission level predetermined as a correction constant are stored;

wherein said maximum guide number, said reference guide number, and said reference flash emission level are stored in said memory, and wherein said calculation device calculates a pre-flash emission level using the following equation:

$$Vfp = Va \times (Gnos/Gno(zoom))^2$$

wherein "Vfp" represents said pre-flash emission level;

"Va" represents said reference flash emission level;

"Gnos" represents said reference guide number; and

"Gno(zoom)" represents said maximum guide number corresponding to the detected zoom position .

9. The flash photography system according to claim 8, further comprising a terminal connector via which said zoom flash can be electrically connected to a camera body;

wherein said zoom driver moves said light emitter in accordance with a focal length of a photographing lens of

said camera body in a case where said zoom flash is electrically connected to said camera body.

10. The flash photography system according to claim 8, wherein said control device controls said light emitter perform a pre-flash emission in a flat emission mode.